

# UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,426	08/07/2000	Robert H. Zimmer	03187-P0006B	3123
24126	7590 09/09/2003			
ST. ONGE STEWARD JOHNSTON & REENS, LLC 986 BEDFORD STREET			EXAMINER	
			YU, GINA C	
STAMFORD,	CT 06905-5619			
			ART UNIT	PAPER NUMBER
			1617	
			DATE MAILED: 09/09/2003	9
				. /

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)			
Office Action Summary		09/844,426	ZIMMER, ROBERT H.			
		Examiner	Art Unit			
		Gina C. Yu	1617			
The MAILING DATE of this communication appears on the cover sheet with the corresp ndenc address P riod for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status						
1)	Responsive to communication(s) filed on					
2a)□	• • • • • • • • • • • • • • • • • • • •	s action is non-final.				
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. <b>Disposition of Claims</b>						
4)⊠	4)⊠ Claim(s) <u>1-18</u> is/are pending in the application.					
	4a) Of the above claim(s) <u>8-16</u> is/are withdrawn from consideration.					
5)	5) Claim(s) is/are allowed.					
6)⊠ Claim(s) <u>1-7,17 and 18</u> is/are rejected.						
7)	Claim(s) is/are objected to.					
8) Claim(s) are subject to restriction and/or election requirement.  Application Papers						
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12) The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
	1. Certified copies of the priority documents have been received.					
	2. Certified copies of the priority documents have been received in Application No					
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) The translation of the foreign language provisional application has been received.  15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
2) Notic	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informal P	(PTO-413) Paper No(s) latent Application (PTO-152)			

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### **DETAILED ACTION**

# Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7, 17, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "chemical or structural variation thereof" renders claims 1 and 7 is vague and indefinite. The metes and bounds of the scope of this limitation is unclear.

The term "poorly" in claim 1, and 7 is a relative term which renders the claim indefinite. The term "poorly" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The remaining claims are rejected as depending on indefinite base claims.

# **Double Patenting**

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 5, 7, and 18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 5, and 6 of copending Application No. 10/237,254. Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims claim a prodrug compound and a pharmaceutical comprising thereof, comprising a peptide with 2-10 amino acids, linked to an acyl group such as cinnamoyl. The present claims claim compounds having 2-10 amino acids, while '254 application claims compounds having 2-40 amino acids. The instantly claimed prodrug compounds are within the claimed range of the '254 application.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Johansen et al. (US 4339534) ("Johansen").

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Johansen discloses peptides with free amino acids as amine component. See Table 1. Compounds such as Benzoyl-Ala-Gly-OH and Bezoyl-Phel-Gly-Val-OH are disclosed. See instant claims 1 and 2.

## Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldstein (US4396606) in view of Bundguaard et al. (US 4694006) ("Bundguaard").

Goldstein teaches opioid compounds having a phenolic hydroxyl linked to polypeptide with at least one amino acid. The reference teaches met-enkephalin and teaches that there has been substantial activity in trying to develop modifications of the compound to enhance the activity. See col. 1, lines 13 – 17.

The Goldstein reference fails to teach the carrier moiety of the instant claims.

Bundgaard teaches methods for preparing the prodrug form of allopurinol and thereby to provide improved aqueous solubility and oral administration compared to the parent compound. See col. 1, line 6 – col. 2, line 47. The reference teaches that a/cyl groups such as benzoyl and cinnamoyl are well known carrier moieties. See col. 5, line 66 – col. 7, line 54; col. 10, line 60- col. 11, line 18.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the opiod of Godstein by linking with acyl groups such as cinnamoyl or benzoyl because of the expectation of successfully producing a prodrug of met-enkephalin for improved solubility and oral administration.

### Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 703-308-3951.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 703-305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1234.

Gina C. Yu Patent Examiner

> SREENI PADMANABHAN PRIMARY EXAMINER

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